	Application No.	Applicant(s)	
Notice of Allowability	10/625,505	BORER ET AL.	
	Examiner	Art Unit	
	Nghia M. Doan	2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Application field on 07/22/2003 and Applicant amended filed on 08/18/2006*.

2. ☒ The allowed claim(s) is/are *1, 3-4, 6-7, 11, 16, 20-23, 25, 27-28, 31-32, 34-35, 37-38, and 41 (renumbered 1-21)*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

         1. ☐ Certified copies of the priority documents have been received.

         2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

         3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the

            International Bureau (PCT Rule 17.2(a)).

     * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

     (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

         1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

     (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

         Paper No./Mail Date _____ .

     Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *20060907* .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

PAUL DINH
PRIMARY EXAMINER

DETAILED ACTION

1.   Responsive to communication application 10/625,505 filed on 07/22/2003,

Applicant amended filed on 08/18/2006, claims 1, 3-7, 11, 16, 20-23, 25, 27-28, 30-32,

34-38, and 41 are pending.

Claims 1, 4, 5, 11, 16, 22, 30-32, and 34-38 have been amended.

Claims 2, 8-10, 12-15, 17-19, 24, 26, 29, 33, 39, and 40 have been canceled.

Claim 41 has been added.

EXAMINER'S AMENDMENT

2.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Mr. Jason D. Lohr, Reg. No. 48,163 on 09/07/2006.

Application is amended as the following:

As per claim 1, line 8, after *"the multiple compilations;"* inserts *"wherein*

performing multiple compilations includes using a static schedule pre-calculated by a

tool to select the series of values for each input parameter to be used in the

compilations;".

As per claim 4, line 14, after *"the design"* inserts *", wherein average results area*

used to distinguish gains in the design due to the input parameters from random

fluctuation in the gains".

As per claim 11, line 8, after *"the multiple compilations;"* inserts *"wherein performing multiple compilations includes using a static schedule pre-calculated by a tool to select the series of values for each input parameter to be used in the compilations;".*

As per claim 16, line 8, after *"the multiple compilations;"* inserts *"wherein performing multiple compilations includes using a static schedule pre-calculated by a tool to select the series of values for each input parameter to be used in the compilations;".*

As per claim 22, line 8, after *"the multiple compilations;"* inserts *"wherein performing multiple compilations includes using a static schedule pre-calculated by a tool to select the series of values for each input parameter to be used in the compilations;".*

As per claim 31, line 1, replaces *"claim 30"* with *"claim 1".*

As per claim 32, line 2, after *"computer readable medium"* inserts *", which is executable by the computer".*

As per claim 32, line 10, after *"the multiple compilations;"* inserts *"wherein performing multiple compilations includes using a static schedule pre-calculated by a tool to select the series of values for each input parameter to be used in the compilations;".*

As per claim 35, line 2, after *"computer readable medium"* inserts *", which is executable by the computer".*

As per claim 35, line 17, after *"the design"* inserts *", wherein average results area used to distinguish gains in the design due to the input parameters from random fluctuation in the gains"*.

As per claims 5, 30, and 36 are canceled.

Allowable Subject Matter

3.   Applicant's arguments, filed 08/18/2006 and combination with the Examiner Amendment above, with respect to 1, 4, 11, 16, 22, 32, 35 and have been fully considered and are persuasive. Therefore, the application is found in allowance condition.

4.   Claims 1, 3-4, 6-7, 11, 16, 20-23, 25, 27-28, 31-32, 34-35, 37-38, and 41 are allowed because the prior art made of record does not teach or suggest a method/computer program product embedded in a computer readable medium which is executable by the computer for automating compilation of a design for an integrated circuit having combinations of steps/elements as recited in claims 1, 4, 11, 16, 22, 32, and 35 particularly including among with other limitations, the inventive steps/elements of comprising:

As per claims 1, 11, 16, 22, and 32, performing multiple compilations of the design using a series of values for each input parameter in a set of input parameters for the design, each input parameter corresponding to a controllable aspect of the design, to generate output values for one or more output metrics based on the series of values, each output metric corresponding to a variable parameter of the integrated circuit to be tracked or optimized during the compiling, the series of values including random values

that are automatically selected for the multiple compilations; wherein performing

multiple compilations includes using a static schedule pre-calculated by a tool to select

the series of values for each input parameter to be used in the compilations; concluding

the performing of multiple compilations when an output value for at least one of the

output metrics reaches a pre-selected stopping criteria; and determining optimal values

of the input parameters based on the multiple compilations, the optimal values operable

to be used to synthesize the design.

As per claims 4 and 35, performing multiple compilations of the design using a

series of values for each input parameter in a set of input parameters for the design,

each input parameter corresponding to a controllable aspect of the design, to generate

output values for one or more output metrics based on the series of values, each output

metric corresponding to a variable parameter of the integrated circuit to be tracked or

optimized during the compiling, the series of values including random values that are

automatically selected for the multiple compilations; concluding the performing of

multiple compilations when an output value for at least one of the output metrics

reaches a pre-selected stopping criteria; and determining average results for the output

metrics across a range of input parameters used for the multiple compilations to

indicated expected noise or variability for the design, wherein average results area used

to distinguish gains in the design due to the input parameters from random fluctuation in

the gains.

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghia M. Doan whose telephone number is 571-272-5973. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PAUL DINH
PRIMARY EXAMINER

NMD